

EXHIBIT A

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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MUSIC ROYALTY CONSULTING, INC.,	:	No. 18-cv-9480 (CM) (KNF)
	:	
Plaintiff,	:	Hon. Colleen McMahon
	:	
-against-	:	
	:	
RESERVOIR MEDIA MANAGEMENT,	:	
INC.,	:	
	:	
Defendant.	:	
	:	
-----X	:	

EXPERT REPORT OF BARRY M. MASSARSKY

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I. INTRODUCTION

1. My name is Barry M. Massarsky, and I am the founder and President of Massarsky Consulting, an economic and strategic consulting firm based in New York City. Massarsky Consulting provides clients with both strategic counsel and statistical data analyses to understand the economic valuation of copyrights. In this capacity, I regularly provide consulting services to most significant music copyright stakeholders including the Recording Industry Association of America, SoundExchange, SESAC, Warner Chappell, Universal Music Publishing Group, Sony Music Publishing and a host of smaller independent music publishers. My firm's clients represent most of all the sound recordings produced as well as a significant number of all the music copyrights owned in the United States.

2. Prior to founding Massarsky Consulting in 1992, I served as Senior Economist at the performing rights organization ASCAP, where I helped lead the survey and distribution strategy for ASCAP's songwriter, composer and music publisher members. I am often sought out by third party financial investors, professional groups and policy makers for my understanding of the music industry and about new developments in the area of music copyright value. I have authored "The Operating Dynamics behind ASCAP, BMI and SESAC, The U.S. Performing Rights Societies," which appeared in *Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment*, Volume 1, Issue 1, January 1994, pp. 217-225.

3. Over the course of my career, I have assisted clients across nearly all areas of the music industry. A significant part of my work involves estimating the value of portfolios of sound recordings and musical compositions. I have advised nearly all of the major music publishing companies in evaluating royalty streams across all significant music genre classifications. I also have provided similar services for well-known composer catalogues, including those of Marvin

Hamlisch, the Estates of George Gershwin and John Lennon, the Guess Who, Pete Townshend, Lionel Richie, and Paul Simon.

4. In addition, I regularly consult with clients over the value of sound recordings, including the value of newly granted rights in sound recordings. Since 2001, I have advised SoundExchange, the performance rights collective that directs royalty payments to artists and recording companies. These royalties are generated from licensed revenue realized from subscription-based digitally-transmitted audio services, and other digital transmissions conforming to the operating requirements set forth in either the Digital Performance Right in Sound Recordings Act or the Digital Millennium Copyright Act, which are amendments to the U.S. Copyright Act enacted within the last three decades in an effort to address technological changes. These licensed music services are strictly non-interactive and are served by a compulsory license determined by federal authorities. I have testified on behalf of the Phonographic Performance Company of Australia, the collecting society that represents the Australian record label industry, in its rate proceeding governing a first-time license fee for digital simulcast or radio transmissions publicly performed in Australia. I presented testimony to the Federal Court of Australia in June 2015.

5. I hold a B.A. degree from Boston University and an M.B.A. from Cornell University. A current version of my CV and a list of my prior testimony over the past four years are attached as Appendix A.

6. I am being compensated at my regular hourly rate of \$700 per hour. In addition, my associate, Elon Altman, who holds the title Senior Economist at my firm, is supporting me in this analysis and is compensated at his regular hourly rate of \$400 per hour. My compensation is not dependent on my opinions expressed or on the outcome of this case.

7. Appendix B lists documents I have considered for this Report.

II. OBJECTIVE OF THIS REPORT

8. I have been asked by counsel for the Defendant, Reservoir Media Management, Inc. (“Reservoir”), to form an opinion on the anticipated value of 16 full owner value songs¹ that Scott Storch (“Storch”) was due to deliver to Reservoir at the time that Storch rejected that certain Exclusive Songwriter & Co-Publishing Agreement by and among Reservoir (as successor-in-interest to TVT Music, Inc. (“TVT”)) and Tuff Jew Productions LLC (“Tuff Jew”) dated June 14, 2000 (the “Publishing Agreement”). In particular, I have been asked how these songs would have lifted overall market value for the music asset portfolio controlled by Reservoir.

9. My stated premise is to look at the present-day value of these songs since inception, i.e., assuming they were released as of today, what would their additive value be to Reservoir’s portfolio. The reader should not think of my calculation, as explained later in this report, as lost revenue, but as lost value to the portfolio from a portfolio value perspective. This method of valuation is consistent with what purchasers of music compositions are looking at, i.e., the future value expectation of revenue streams generated by the use of these titles. As a consequence, I chose to forecast what the additive Storch compositions would have contributed to the overall Reservoir assets fund had Storch fulfilled his contractual obligation as per his publishing agreement with Reservoir.

10. Based on the foregoing and the analysis contained in this report, I conclude that the lost value to Reservoir’s portfolio from the undelivered compositions that Storch was due to deliver is \$1,344,560.

¹ Full value at 100% for 16 songs, or partial songs that add up to an equivalent 1,600% of copyright ownership.

11. I am uniquely qualified to estimate this lost incremental value to Reservoir. Along with our valuation responsibilities for Reservoir, my firm provides similar services for many of the music asset funds operators, including Hipgnosis, Round Hill, Downtown, Primary Wave, Lyric Capital/Spirit Music, Shamrock Capital and Peermusic, among many others.

III. BACKGROUND FACTS RELEVANT TO THIS REPORT

12. Music Royalty Consulting, Inc. (“MRCI”) is in the business of purchasing the royalty income (essentially, the rights to future royalties) from recording artists and songwriters.

13. Storch is a renowned songwriter and music producer, most known in the pop and hip hop genres. He has written and/or produced 9 RIAA Platinum and 12 RIAA Gold tracks, 11 songs that peaked in the top 10 of the Billboard Hot 100 chart (6 reaching #1), and 13 songs that peaked in the top 10 of the Billboard Hot R&B/Hip Hop chart (5 reaching #1). Although he is best known for his prolific success in the early 2000s, culminating in winning the 2006 ASCAP Songwriter of the Year award, he has also written and/or produced 2 RIAA Platinum and 7 RIAA Gold tracks since 2016.²

14. On June 14, 2000, Tuff Jew entered into the Publishing Agreement with Reservoir’s predecessor-in-interest party, TVT, that required Storch to deliver, among other things, a minimum number of music compositions during the term of the Publishing Agreement with the copyrights in those compositions to be co-owned by Tuff Jew and Reservoir. The Publishing Agreement provides certain term periods under which Storch was required to deliver a minimum number of compositions (each an “Option Period”).

² RIAA certifications and Billboard chart history pulled from the Wikipedia pages of Storch’s notable songs.

15. On December 13, 2004, TVT and Storch entered into an amendment under which Storch granted TVT five separate Option Periods, each with a minimum number of compositions to be delivered.

16. On September 29, 2011, Reservoir, as TVT's successor-in-interest, purchased Tuff Jew's 50% share of the copyrights in Tuff Jew's musical catalogue, together with Tuff Jew's portion of the publisher's share of royalties. On that same date, Reservoir and Tuff Jew executed a third amendment to the Publishing Agreement (the "Third Amendment"), under which the parties agreed to deem the third Option Period to immediately expire and the fourth Option Period to immediately commence. In each of the fourth and fifth Option Periods, Tuff Jew was required to deliver eight (8) compositions as per Section 6 of the Third Amendment of the Publishing Agreement between the parties (for a total of sixteen (16) compositions).

17. On June 3, 2015, Storch filed for personal bankruptcy under Chapter 7 in the United States Bankruptcy Court for the Southern District of Florida. *See In re Scott Storch*, No. 15-bk-20095.

18. On December 5, 2017, the Bankruptcy Court entered the Order Granting Debtor[']s Motion to Deem Pre-Petition Contracts Rejected and Determine Ownership of "All Eyez" (No. 15-bk-20095, ECF Doc. No. 168), which deemed the Publishing Agreement to be rejected as a matter of a law under the bankruptcy code.

19. As a result of the rejection, Storch was no longer bound, under the Publishing Agreement, to deliver the sixteen undelivered compositions to Reservoir. I have been advised by counsel that Storch's rejection constitutes a breach of the Publishing Agreement. Reservoir was damaged in the manner that will be explained in the remainder of the report.

IV. ECONOMICS OF MUSIC COPYRIGHTS

20. It is important to understand the music trends of revenue opportunity to appreciate why the catalogue of a famed producer and songwriter, such as Scott Storch, would be of great income value for Reservoir. The critical drivers of royalty value require definition.

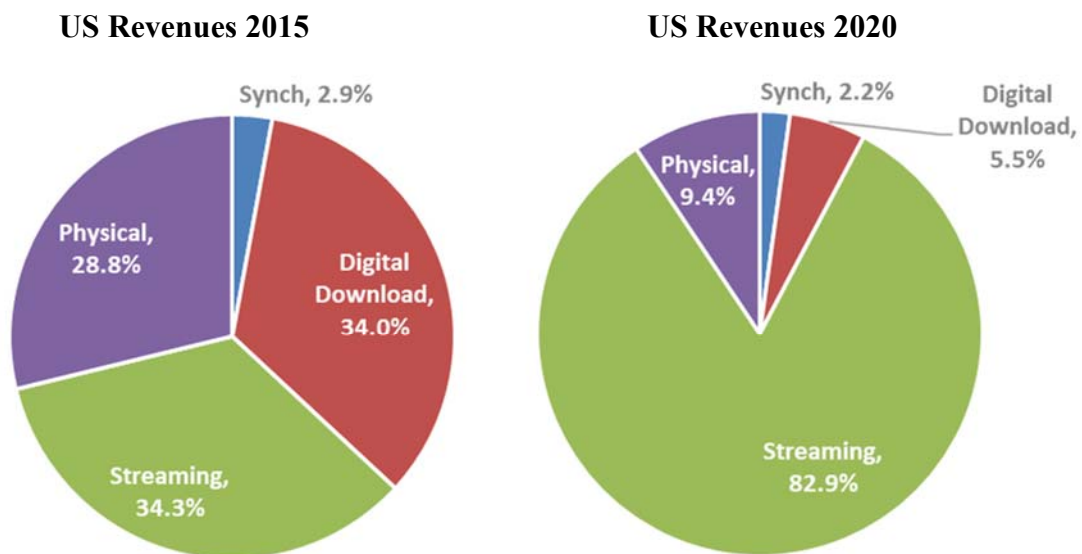
21. The owners of copyrights in musical compositions and sound recordings must generally license users who make the works available to the public. In the case of musical compositions, radio stations, digital music streaming services such as Spotify or Pandora, and other entities that broadcast music are required to obtain a *performance license* in order to broadcast the compositions to their listeners. In addition, a record company releasing a sound recording embodying a musical composition for sale and certain *on-demand* music streaming services is required to have a *mechanical license* to create a copy of the musical compositions. Finally, in order to incorporate a musical composition into an audiovisual work, such as a film, television program, advertisement, or video game, the creator of that audiovisual work must obtain a *synchronization license* from the copyright owners.³

22. Similarly, copyright owners of sound recordings (typically musical artists and record companies), are entitled to royalty payments when their recordings are publicly performed or used in certain commercial activities. One notable exception is that in the United States, AM and FM radio stations are not required to obtain a performance license for the sound recordings of music they broadcast. The recorded music industry was historically based on record and CD sales. Sales of physical recordings were replaced by sales of single-recording and album downloads in the early- to mid-2000s. Over the past decade, sales of music have been largely replaced by

³ For more detail about these licenses, see U.S. Copyright Office, *Copyright and the Music Marketplace* (Government Printing Office) February, 2015, p. 55-58.

streaming of individual sound recordings through services including Spotify, Apple Music, and Pandora. The chart below presents the share of revenue of the U.S. recorded music industry in 2015 and in 2020, by revenue source. It shows that in 2015, sales of physical and digital downloads made up 62.8% of industry revenue, and streaming comprised 34.3%.⁴ By 2020, revenue from streaming accounted for 82.9% of industry revenue, whereas sales of physical and digital downloads made up 14.9% of revenue.⁵

U.S. Recorded Music Industry Revenue



Source: Recording Industry Association of America.

23. It is important to note that this rise in digital streaming revenue for the record companies has also resulted in a significant mechanical streaming growth of value for the compositions controlled by music publishing.

⁴ Joshua P. Friedlander, “News and Notes on 2015 RIAA Shipment and Revenue Statistics,” p. 1.

⁵ Joshua P. Friedlander, “Year-End 2020 RIAA Revenue Statistics,” p. 1.

V. IMPORTANCE OF CONSTRUCTING A PROPER MUSIC VALUATION OF MUSIC ASSETS

24. My firm, Massarsky Consulting, is the leading music valuation firm in the music assets marketplace. We regularly provide the portfolio valuations known as the net asset valuation (“NAV”) for nearly all the leading funds transacting in the market including Hipgnosis, Primary Wave, Downtown, Spirit/Lyric Capital, Reservoir, peermusic, Shamrock Capital and Round Hill Music, among many others.

25. Just in the last few months, I or my partner, Ms. Nari Matsuura, have been quoted in The New York Times, The Wall Street Journal, The London Times, Bloomberg, Barrons and Vice on the subject of music valuation.

26. In particular, investors of music assets rely on an economic measure of future income expectation for basing investment decisions. These investors include a wide array of capital sourcing profiles including private equity, pension and endowment funds, and high net worth interested parties.

27. Commercial lending is also prevalent for sourcing music acquisition capital and these banks rely on economic evidence to judge their commitment level of commercial debt loans into these music asset funds.

28. These music catalogue⁶ studies require a strong analytical review of recent royalty earnings experience for a particular catalogue and then reliable short-term forecasts for assessing market growth of the significant songs comprising the catalogue.

⁶ A music catalogue is a grouping of titles written in part or whole by a common songwriter.

29. My construction of a music asset valuation model is predicated on the discounted cash flow method (“DCF”) which depicts the net present value (“NPV”) of future cash flows at a pre-determined discount rate or expected internal rate of return.

30. The DCF model approach allows the investor to judge the current market price value for the portfolio of music rights owned in the future.

31. My model construct relies on the following economic inputs:

- Baseline Value: The baseline value refers to the earnings benchmark, applied on a per income type (e.g., synchronization license, mechanical license), per song basis, against which the first projected year’s growth rate is applied. The baseline value is typically the most recent year’s earnings, but in the case of pipeline or future titles,⁷ the baseline would be an estimate of the first-year earnings (typically the peak earnings year for a song).
- Growth Rates: Growth rates⁸ of pipeline titles are applied on an income type basis, and feature lifecycle declines in the first few years after a song’s peak period as activity wanes, eventually reaching steady state. Once reaching steady state, growth rates are determined based on considerations of industry trends within each income type, from analyst reports and the compounded annual growth rate (“CAGR”) of historical industry earnings within each income type.
- Discount Rate: A 9% discount rate is used to calculate the Net Present Value (“NPV”) of future cash flows. The goal of setting the discount rate is to weigh all

⁷ Pipeline titles are titles that have not yet received income since they were either recently released or are planned for release. Futures are as-yet unwritten titles. Earnings of significant pipeline or futures titles are estimated by using the earnings of a comparable title or set of titles.

⁸ Growth rates refer to annual growth rates.

the different levels of expected return from the pension funds who want an annuity class asset above the bond rate to the higher staked private equity demands. Assigning 9% is the broad average of expectations across the market participants. By assigning 9%, I note that the Fed Funds Rate is near 0% and that the Federal Reserve has announced that it is not likely to raise rates until 2023 at the earliest. I also note an overall direction toward lower discount rates across the music asset investor market.

- Terminal Growth Rate: The terminal growth rate is the ongoing value of the copyrights based on future market conditions. A terminal value is applied in year 16 after a fifteen-year projection. I am assigning the terminal growth rate equal to the growth rate in the final year of my projection, which in this case is 2.2%.
- U.S. Mechanical Streaming Rate Increase: In 2018, the Copyright Royalty Board (“CRB”) decided to significantly increase mechanical royalty rates for streaming approximately 44% over the 2020 rates over the next five years. The old mechanical streaming rate was approximately 6.5% of revenues.⁹ Based on the new rates, I estimate that the new mechanical rate will be approximately 10.2% of revenues in 2021 and 11.1% of revenues in 2022.¹⁰ The percentage difference between these new rates and the current rates is added as an uplift above the projected U.S. streaming mechanical earnings in each year.¹¹

⁹ This is calculated by subtracting 4% for the performance rate (estimate based on industry knowledge) from the former combined mechanical and performance rate of 10.5%.

¹⁰ This is based on the same assumption of 4% for the performance rate, which is for 5 years.

¹¹ The percentage of mechanical earnings that come from U.S. streaming mechanical earnings (the percentage that this uplift would apply to) is estimated based on the percentage from a similar catalogue.

- Taxes: Net Publisher Share (“NPS”),¹² before taxes, are discounted to arrive at the NPV of future cash flows, representing the value of the asset. Taxes are not applied to the valuation¹³ since it is market value that is being calculated, which is a reflection of the various buyers and their level of willingness to pay. As many, if not most, of these buyers are funds that are situated in tax favorable havens, and because they are essentially driving the market, the model duly reflects their tax situation. In the music industry, it is common knowledge that music funds are placed in tax favorable havens, and is accepted practice by all buyers and lenders in the marketplace that taxes are not applied as a result.
- Multiples: Although my firm conducts most of the annual valuations of major funds that hold music intellectual property,¹⁴ and has compiled a large volume of historical and current multiples across all types of catalogues, I do not rely on comparable multiples to derive the values of the catalogues contained within these funds, because multiples cannot capture the unique aspects of a catalogue as characterized by each revenue stream’s historical earnings trend, any significant new releases, adjustments for one-time events, pipeline, futures, etc., any of which may have a significant impact on the value of the catalogue, and all of which can be captured in an NPV model.

32. These factors are applied in the model attached as Exhibit A.

¹² The NPS are the revenues earned by musical publishers after payments to their writers.

¹³ The tax shield from amortization of the asset is also not applied.

¹⁴ Including Downtown, Hipgnosis, Lyric, Primary Wave, Reservoir, Round Hill, Tempo, etc.

VI. THE DISCOUNTED CASH FLOW MODEL STUDY OF THE UNDELIVERED COMPOSITIONS

33. Scott Storch remains an active songwriter in his post-rejection period. From 2015 to 2021, Storch wrote and/or produced at least 48 songs, many of which were recorded by major hip hop artists of similar pedigree to the major artists with whom he worked in his early-2000s period (when he was extremely successful). The 2015-2021 compositions were co-written with artists such as DJ Khaled, Shaggy, Rick Ross, Chris Brown, The Game, Meek Mill, French Montana, 6ix9ine, Megan Thee Stallion and Post Malone.

34. Scott Storch was obligated to deliver to Reservoir 16 full new commercially-released compositions,¹⁵ or fractional shares in the aggregate (in other words, 1,600% share across however many songs it takes to reach that total). Storch's average share per song is approximately 27.9%.¹⁶ Therefore, in order to fulfill his obligation to Reservoir, Storch would have been required to deliver approximately 57 commercially released songs ($27.9\% \times 57 = \text{approximately } 1,600$). I am thus assuming that all of the 48 songs written through 2021 fit into Storch's obligation to Reservoir.

¹⁵ 8 full new songs in the fourth Option Period and 8 full new songs in fifth Option Period.

¹⁶ Average share of the 11 post-Bankruptcy Storch tracks included in my value projection described on the next page and also listed in Exhibit A.

35. In order to determine which of these compositions would have generated additive value to Reservoir's portfolio, I researched the list of 48 songs based on factors such as charting history, radio airplay (as measured by Mediabase¹⁷), and total Spotify streams to date. Radio airplay is a major factor that affects anticipated performance income. Spotify, as a proxy for streaming royalties, is a major factor that affects mechanical and performance income. Out of this list of songs, 11 hit benchmarks that, in my professional experience, are classified as mid-sized hits, which would have added meaningful value to Reservoir's portfolio:

Song Title	Artist	Release Year	Billboard Hot 100 Peak Position	Spotify Streams up to 4/8/2021	Mediabase Radio Airplay in Peak 4 Quarters
Sorry	Rick Ross ft. Chris Brown	2015	97	40,039,319	43,302
All Eyez	The Game ft. Jeremih	2016	79	100,306,667	123,103
Wife You Up	Russ	2017	NA	55,366,534	18,285
Zack & Codeine	Post Malone	2018	23	202,071,913	insignificant
KIKA	6ix9ine	2018	44	272,599,840	insignificant
WAKA	6ix9ine	2018	51	108,899,446	insignificant
Undecided	Chris Brown	2019	35	143,197,058	150,650
I'll Kill You	Summer Walker	2019	61	70,969,434	insignificant
Do It	Chloe x Halle	2020	63	88,237,106	132,000
Girls In The Hood	Megan Thee Stallion	2020	28	119,151,775	93,144
Tyler Herro	Jack Harlow	2020	34	151,478,499	84,256

36. The other Storch compositions (i.e., those outside of the 11 listed above) would have fulfilled his requirement to Reservoir, but would have added minimal value to Reservoir's portfolio because they have insignificant income potential based on the factors listed above. Specifically, these other songs generally had no significant radio activity, low Spotify streaming totals, and little charting success.

37. In order to assess the additive value of the 11 mid-sized hits, I asked Reservoir to provide me with the earnings of comparable titles from within Reservoir's catalogue that fit appropriate benchmarking, including: common format designations, such as hip hop and top 40,

¹⁷ Mediabase is a subscription service that tracks all airplay across over 1,600 commercial U.S. radio stations.

relevant time period, and artists either with direct experience with Scott Storch or similarly situated to him and his collaborators, and streaming and radio activity. I selected my own comparable titles matching these same descriptors. I asked for this data since I do not have earnings data on the post-bankruptcy Storch composition.

38. The earnings of these comparable titles were used to estimate the peak-year earnings potential of the Storch post-bankruptcy compositions. From this list of comparable titles, I considered one song to be a good proxy for the mid-sized hits that had significant radio and streaming-related royalties, and one song to be a good proxy for the mid-sized hits that only generated significant streaming royalties:

- “Pills & Automobiles” – Single by Chris Brown. This song has 189 million Spotify streams to date, and had 129,728 Mediabase detects in its peak four quarters. It peaked at #46 on the Hot 100, #16 Hot R&B/Hip Hop Songs, and #25 US Rhythmic. This song was used as a comparable title for the songs with significant radio and streaming activity.
- “Notice Me” – Album track by Migos. This song has 174 million Spotify streams to date, but no significant radio airplay measured by Mediabase. It peaked at #52 on the Hot 100. This song was used as a comparable title for the songs with significant streaming activity only.
- There was also one song that was a good proxy for the small Storch compositions: “Why” – Single by Shaggy. This song has 3.4 million Spotify streams to date, no significant radio airplay and did not chart.

39. Of the 11 mid-sized hits, 7 had significant radio and streaming activity, so the comparable title applied was “Pills & Automobiles”, and 4 had significant Spotify totals but insignificant radio activity, and thus the comparable title “Notice Me” was applied.

40. Gross earnings of the comparable titles were provided by income type (e.g., mechanical, performance, synchronization license) at Reservoir’s controlled share. Peak year earnings by income type were used as baseline values for the peak year earnings of the Storch compositions, with the following adjustments:

- Share adjustment: For the 11 mid-sized Storch titles, the comparable title’s earnings were adjusted to Storch’s share of each song. For example, Reservoir’s share of “Pills & Automobiles” is 15%, and Storch’s share of “All Eyez” is 26.5%, so “Pills & Automobiles” earnings were multiplied by $(26.5\% / 15\%)$. The amendments to the Publishing Agreement called for 16 full new compositions or the equivalent of 16 full new compositions (1,600% share). The 11 mid-sized songs have a combined 306.4% share (Storch’s average interest of 27.9% per song x 11 songs). The additional songs would need to have a combined share of 1293.6% $(1,600\% - 306.4\% \text{ share for the mid-sized songs})$ to reach a total of 1,600%.
- NPS adjustment: Comparable titles’ earnings were provided at a gross level, before Reservoir’s distributions to the writer(s). Earnings were adjusted to the NPS amount based on Storch’s NPS percentages in his deal with Reservoir: 50% of mechanical, synchronization, and other, and 100% of publisher performance income.
- Adjustment based on streaming and airplay totals: 7 of the mid-sized Storch titles had significant radio and streaming activity, so the comparable title applied was

“Pills & Automobiles.” The comparable title’s earnings were adjusted based on the ratio of its Mediabase radio detects (in its peak four quarters) and Spotify streams (to date) compared to those measures for the Storch titles. For mechanical earnings, which are primarily driven by streaming, the earnings were adjusted by the Spotify ratio. For performance earnings, which are a blend of radio and streaming, the average of the Spotify and Mediabase ratios was applied.

41. The chart below compares the current/baseline value of the 7 mid-sized Storch titles against the comparable title “Pills & Automobiles” based on the estimable measures described above (these baseline values drive the future valuation calculation in the attached DCF model):

Song Title	Artist	Mediabase Radio Airplay in Peak 4 Quarters	Spotify Streams up to 4/8/2021	Mediabase Compared to Comp Title	Spotify Compared to Comp Title	Average Mediabase & Spotify Share Compared to Comp Title
Sorry	Rick Ross ft. Chris Brown	43,302	40,039,319	33.4%	21.2%	27.3%
All Eyez	The Game feat. Jeremih	123,103	100,306,667	94.9%	53.1%	74.0%
Wife You Up	Russ	18,285	55,366,534	14.1%	29.3%	21.7%
Undecided	Chris Brown	150,650	143,197,058	116.1%	75.8%	96.0%
Do It	Chloe x Halle	132,000	88,237,106	101.8%	46.7%	74.2%
Girls In The Hood	Megan Thee Stallion	93,144	119,151,775	71.8%	63.1%	67.4%
Tyler Herro	Jack Harlow	84,256	151,478,499	64.9%	80.2%	72.6%
Pills & Automobiles (Comp Title)	Chris Brown	129,728	188,901,502			

42. The chart below identifies the current/baseline value of the 4 Storch titles that had significant Spotify totals, but insignificant radio airplay and compares the current value of those compositions against the comparable title “Notice Me” based on the ratio of the Spotify streams (again, these baseline values drive the future valuation calculation in the attached DCF model):

Song Title	Artist	Spotify Streams up to 4/8/2021	Spotify Compared to Comp Title
Zack And Codeine	Post Malone	202,071,913	116.3%
KIKA	6ix9ine	272,599,840	156.8%
WAKA	6ix9ine	108,899,446	62.7%
I'll Kill You	Summer Walker	70,969,434	40.8%
Notice Me (Comp Title)	Migos & Post Malone	173,813,214	


43. Starting with the baseline values in each appropriate income type, each year's earnings were projected based on lifecycle and long-term growth rates spanning 15 years. *See* Exhibit A for full set of growth rates and earnings projections.

44. I calculated the NPV of the catalogue based on my view of an appropriate industry rate of return of 9% IRR and a 2.2% terminal rate (the growth rate of my projections in year 15).

45. I calculate the total net present value of 11 mid-sized titles and the additional small titles to be \$1,344,560. The full DCF valuation model can be viewed in Exhibit A.

Song Title	Artist	DCF Value
Sorry	Rick Ross ft. Chris Brown	\$ 41,543
All Eyez	The Game feat. Jeremih	\$ 80,072
Wife You Up	Russ	\$ 73,737
Zack And Codeine	Post Malone	\$ 234,827
KIKA	6ix9ine	\$ 490,079
WAKA	6ix9ine	\$ 102,107
Undecided	Chris Brown	\$ 43,803
I'll Kill You	Summer Walker	\$ 27,595
Do It	Chloe x Halle	\$ 110,093
Girls In The Hood	Megan Thee Stallion	\$ 50,679
Tyler Herro	Jack Harlow	\$ 51,984
Additional Titles		\$ 38,041
Total Value		\$ 1,344,560

Dated: New York, New York
April 9, 2021



Barry M. Massarsky

Appendix A: Curriculum Vitae

Barry M. Massarsky

46. I am by training and profession a music industry economist. Throughout my 39-year career in the study of music, I have specialized in performing economic and market analyses for both sound recordings and copyrighted musical works.

47. I obtained a Bachelor of Arts degree, *cum laude*, from Boston University in 1977, which included numerous courses in economic analysis. I obtained a Masters of Business Administration from Cornell University in 1981. My M.B.A. studies included an emphasis in managerial and industrial organization economics.

48. From 1977 to 1979, I was employed as a litigation economist with the United States Department of Justice. My role was to conduct economic analyses in connection with the government's antitrust suit against IBM.

49. From 1981 through 1992, I was employed as an economist by the American Society of Composers, Authors and Publishers ("ASCAP"), which, along with Broadcast Music Inc. ("BMI"), is one of the two major performing rights organizations ("PRO") in the United States. In 1987, I was promoted to Senior Economist, the position I held until my departure from ASCAP in 1992. My role at ASCAP was to provide statistical, economic and supervisory judgment over the ASCAP distribution processing of its member performances. I was especially responsible for the economic cases related to ASCAP music use valuations and to analyze and present scenarios for changing the value of different types of music performances for survey processing.

50. In 1992, I started an economic consulting firm named Barry M. Massarsky Consulting, Inc. ("Massarsky Consulting"). My firm provides advisory consulting services to a host of music industry clientele relating to strategies affecting music licensing and royalty earnings. The firm now employs three other economists including my partner, Ms. Nari Matsuura.

51. Beginning in 1992, I provided consulting services for the Recording Industry Association of America (RIAA) with respect to performing rights matters and have prepared and presented analyses of the first-time value of a sound recording in the context of a public performance. Through these consulting services for the RIAA, I have become closely acquainted with the business conditions and industry matters that affect record companies' decision making.

52. In 2001, I began advising a new performance rights collective, SoundExchange, which directs royalty payments to artists and recording companies. These royalties are generated from licensed revenue realized from subscription-based digital-transmitted audio services, and other digital transmissions conforming to the operating requirements set forth in either the Digital Performance for Sound Recordings Act or the Digital Millennium Copyright Act. These licensed music services are strictly non-interactive and are served by a compulsory license determined by federal authorities.

53. My consulting firm continues to serve several of the most significant music publishing companies including: Universal Music Publishing Group, Warner Chappell, SONY/ATV, Spirit Music Group, Round Hill Music, Downtown Music Publishing, Primary Wave and Reservoir. My evaluation of royalty streams for these firms spans all significant music genre classifications. Further, my firm has provided consulting services for well-known composer catalogues such as Marvin Hamlisch, the Estate of George Gershwin and John Lennon, Diane Warren, the Guess Who, Pete Townshend, Lionel Richie, Paul Simon and Green Day, among many others. For these clients, I developed first time performance income forecasts for major publishers desiring a statistically prudent advance look at impending ASCAP and BMI income and for testing best case performance income ASCAP to BMI comparatives for high profile writer catalogues.

54. Since 1993, and now over 27 years, I have provided consulting services to SESAC, a performing rights competitor to ASCAP and BMI, including the economic appraisal of music repertory valuation and the modeling of innovative music license approaches.

55. From 2000 to 2013, my firm had also directly consulted for Nielsen BDS and SoundScan and continues to be familiar with their services for the music industry.

56. In 2001, I was retained as an expert witness for Zomba and its affiliated companies in the *Zomba v. MP3.com* case. I provided deposition testimony in that matter before it was ultimately settled prior to trial. In 2001, I was also retained as an expert witness for Major Bob Music Publishing (Garth Brooks) in its lawsuit against MP3.com, which also settled prior to trial. In 2003, I was retained as an expert witness for both the Country Roads Music plaintiffs (Bob Dylan, Billy Joel and James Taylor) and Fonomusic/Fonovisa plaintiffs, in their lawsuits against MP3.com. I was deposed in both of those cases prior to their respective settlements before trial.

57. In 2004, I was retained by the RIAA and BMG in a copyright infringement action against Launch Media. I was deposed in that matter and testified at trial in 2007. In 2004, I was also retained by the RIAA as an expert witness in its lawsuit against iMesh, a popular filesharing service. That case settled prior to trial.

58. In 2007, I was also retained as an expert witness in *Slip N' Slide Records, Inc. v. TVT Records, LLC*, Case No. 05-21113-Civ (Torres) in the United States District Court for the Southern District of Florida. I testified during a jury trial in that action, as a rebuttal expert to the plaintiff's assertions of damages relating to a specific recording's hypothetical sales value.

59. In addition, in 2009 I was deposed in the *Tango v. Tibble* litigation, which involved claims of legal malpractice involving a collection of recordings by David Bowie and others. This case was settled prior to trial.

60. In 2009, I was also retained as an economic expert in the case of *Avonti Garrett v. Baptist Healthcare Systems, Inc.* regarding the future earnings of the deceased award-winning songwriter Stephen Garrett. I was twice deposed in that case in April 2011 and December 2011. The parties settled just prior to my scheduled testimony in 2012.

61. In 2010, I provided an expert rebuttal report regarding a damage claim in *Victory v. Virgin (EMI) Records*. In 2010, I was also retained by EMI Records and Publishing in its suit against MP3Tunes.com, to provide an expert opinion regarding a lost license theory of recovery. I was deposed in that matter in 2010.

62. In 2015, I presented evidence and did testify in Sydney, Australia representing the performance rights interests of the Australian recording industry in a radio simulcast rate setting case opposing the Australian radio industry.

63. Also, in 2015, I was deposed in *UMG Recordings Inc. et al. v. Global Eagle Entertainment*, on behalf of UMG and UMPG concerning affirmative damages relating to copyright infringement against a major airline music program supplier. The matter was settled to the benefit of my client just prior to my testimony in 2016.

64. In 2016, I represented UMG, Justin Bieber and Usher among other parties, in a copyright infringement action concerning the song “Someone to Love.” In that matter, I developed a damages mitigation model that considered relevant industry factors unfamiliar to the Plaintiffs. I was deposed in that matter and the case was never tried.

65. In 2018, I represented Ed Sheeran and Warner Music in a copyright infringement matter concerning the song “Thinking Out Loud.” I rendered an expert report again in producing a possible damages analysis but have not yet been deposed. In 2020, I rendered yet another rebuttal

expert report in relation to a new plaintiff, Structured Asset Sales LLC. I am awaiting word on a deposition schedule.

66. In 2018, I was also retained by SONY/ATV and VIACOM in defense of a music royalties claim against Extreme Music filed by two composers. The case, *Twelve Sixty et al. v. Extreme Music Library Limited et al.*, called upon my knowledge of performance rights organization distribution matters as well as a critical review of plaintiff's rendering of damages. I was deposed in that matter and the case was dismissed on summary judgment.

67. In 2020, I was retained by defendants' counsel in *Green v. West*, a copyright infringement matter relating to Kanye West, to offer up rebuttal to plaintiff's expert's damages theories. A report was submitted and the case settled.

68. In 2021, I was retained by defendant's counsel in *Artem Stoliarov v. Marshmello Creative et al.*, a copyright infringement matter relating to Marshmello and others, to present a rebuttal damages report to plaintiff's suggested damages for the song, "Happier". I have recently submitted my expert report and awaiting work on next steps.

69. I have also testified in the following cases: *United States v. ASCAP, In the matter of the Application of Salem Media of California, Inc. and New England Continental Media, Inc.* [Civil Action No. 13-95 (WCC)]; and *In Re Determination of Statutory License Terms and Rates for Certain Digital Subscription Transmissions of Sound Recordings* (Copyright Office Library of Congress) (CARP DSTR A Docket No. 96-5).

70. My firm is also recognized as a premier music catalogue valuation firm for all forms of transactions within the music industry. The lending sources for these transactions, the commercial banks, hold us on their short list as "a preferred valuation team for the music industry." A significant portion of all music publishing copyright transactions are handled by my office .

71. I have authored “The Operating Dynamics behind ASCAP, BMI and SESAC, The U.S. Performing Rights Societies,” which appeared in *Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment*, Volume 1, Issue 1, January 1994, pp. 217-225.

72. I have often been quoted in the media concerning business developments and transactions within the music industry, including as recently as twice in 2018 in The New York Times and was recently quoted in Rolling Stone as well as being interviewed on The Today Show regarding the value of the Michael Jackson estate. I also frequently appear as a speaker at educational events about the music industry.

73. I have been asked to speak at several professional seminars including repeat performances before the Copyright Society of the South, the Association of Independent Music Publishers (“AIMP”) for both the Nashville and Los Angeles branches, the CMJ Music Forum and A2IM independent label annual conferences in New York and The Hollywood Reporter/Billboard Film/TV Music Conference in Los Angeles, as well as private bank presentations for SunTrust and City National Bank. I have been asked to speak at the South by Southwest music festival in Austin, Texas. I continue to be sought out for public speaking on issues concerning the music industry as well as being quoted by national media covering the music industry.

74. In the role of serving SESAC, in 1993, I began development of a new subsidiary for SESAC—SESAC LATINA, which now houses the public performance rights needs of Spanish language protected compositions uniquely used by about 450 Spanish speaking radio stations within the United States. In this capacity, I worked alongside Nielsen BDS to build a new technological capability for electronic monitoring of these radio stations while also creating novel

licensing concepts for providing more pinpoint licensing value for these Spanish language radio stations utilizing SESAC LATINA works.

75. I have also testified in the following cases: Phonographic Performance Company of Australia Limited (ACN 000 680 704) Under Section 154(1) of the *Copyright Act 1968* (Cth) [2015].

Appendix B: Documents Considered

The First Amended Complaint of MRCI (ECF Doc. No. 55).

The Decision and Order Granting in Part and Denying in Part Defendant's Motion to Dismiss the Complaint dated April 17, 2019 (ECF Doc. No. 48).

The Decision and Order Granting in Part and Denying in Part Defendant's Motion to Dismiss the Amended Complaint Part dated October 31, 2019 (ECF Doc. No. 69).

The Exclusive Songwriter & Co-Publishing Agreement by and among Reservoir (as successor-in-interest to TVT Music, Inc.) and Tuff Jew Productions LLC dated June 14, 2000.

The Asset Purchase Agreement by and among Reservoir and Storch, dated September 29, 2011.

The third amendment to the Publishing Agreement, dated September 29, 2011.

Scott Storch – Contract Periods and Delivered Comps – Excel file

Storch Post Bankruptcy Comparable Songs – Excel file

“Notice Me” & “Kelly Price” – Royalty Earnings (Incept – 2h2020) – Excel file

Wikipedia.com – Scott Storch Production Discography – to supplement list of Storch compositions

Wikipedia.com – Individual song pages for charting and RIAA certification information

Mediabase.com – Radio Airplay Data

Joshua P. Friedlander, “News and Notes on 2015 RIAA Shipment and Revenue Statistics”.

Joshua P. Friedlander, “Year-End 2020 RIAA Revenue Statistics”.

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EXHIBIT A: SCOTT STORCH SONG VALUATION

<u>Song</u>	<u>Artist</u>	<u>Share</u>	<u>Adjustment Factor</u>	<u>NPS %</u>	<u>Baseline</u>
Sorry	Rick Ross ft. Chris Brown	35.0%			
Mechanical			21.2%	50.0%	\$ 4,937
Performance			27.3%	100.0%	\$ 2,798
Synch & Other			100.0%	50.0%	\$ 21
Total					
All Eyez	The Game feat. Jeremih	26.5%			
Mechanical			53.1%	50.0%	\$ 9,365
Performance			74.0%	100.0%	\$ 5,744
Synch & Other			100.0%	50.0%	\$ 16
Total					
Wife You Up	Russ	50.0%			
Mechanical			29.3%	50.0%	\$ 9,753
Performance			21.7%	100.0%	\$ 3,179
Synch & Other			100.0%	50.0%	\$ 30
Total					
Zack And Codeine	Post Malone	32.0%			
Mechanical			116.3%	50.0%	\$ 21,393
Performance			116.3%	100.0%	\$ 25,515
Synch & Other			100.0%	50.0%	\$ 839
Total					
KIKA	6ix9ine	50.0%			
Mechanical			156.8%	50.0%	\$ 45,094
Performance			156.8%	100.0%	\$ 53,782
Synch & Other			100.0%	50.0%	\$ 1,312
Total					
WAKA	6ix9ine	25.0%			
Mechanical			62.7%	50.0%	\$ 9,007
Performance			62.7%	100.0%	\$ 10,742
Synch & Other			100.0%	50.0%	\$ 656
Total					

<u>Song</u>	<u>Artist</u>	<u>Share</u>	<u>Adjustment Factor</u>	<u>NPS %</u>	<u>Baseline</u>
Undecided	Chris Brown	10.4%			
Mechanical			75.8%	50.0%	\$ 5,247
Performance			96.0%	100.0%	\$ 2,924
Synch & Other			100.0%	50.0%	\$ 6
Total					
I'll Kill You	Summer Walker	10.0%			
Mechanical			40.8%	50.0%	\$ 2,348
Performance			40.8%	100.0%	\$ 2,800
Synch & Other			100.0%	50.0%	\$ 262
Total					
Do It	Chloe x Halle	40.0%			
Mechanical			46.7%	50.0%	\$ 12,435
Performance			74.2%	100.0%	\$ 8,698
Synch & Other			100.0%	50.0%	\$ 24
Total					
Girls In The Hood	Megan Thee Stallion	15.0%			
Mechanical			63.1%	50.0%	\$ 6,297
Performance			67.4%	100.0%	\$ 2,963
Synch & Other			100.0%	50.0%	\$ 9
Total					
Tyler Herro	Jack Harlow	12.5%			
Mechanical			80.2%	50.0%	\$ 6,671
Performance			72.6%	100.0%	\$ 2,657
Synch & Other			100.0%	50.0%	\$ 7
Total					
Additional Titles		1293.6%	100.0%		
Mechanical				50.0%	\$ 5,449
Performance				100.0%	\$ 924
Synch & Other				50.0%	\$ -
Total					

Growth Rates	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Mechanical	0.00%	-45.00%	-30.00%	-15.00%	-10.00%	0.00%	0.00%	0.00%	2.50%	2.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Performance	0.00%	-60.00%	-35.00%	-20.00%	-10.00%	0.00%	0.00%	0.00%	3.55%	3.55%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Synch & Other	0.00%	-15.00%	-10.00%	0.00%	0.00%	0.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Song	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Sorry																
Mechanical	\$ 4,937	\$ 2,715	\$ 1,901	\$ 1,616	\$ 1,454	\$ 1,454	\$ 1,454	\$ 1,454	\$ 1,490	\$ 1,528	\$ 1,558	\$ 1,589	\$ 1,621	\$ 1,654	\$ 1,687	\$ 1,720
Performance	\$ 2,798	\$ 1,119	\$ 727	\$ 582	\$ 524	\$ 524	\$ 524	\$ 524	\$ 542	\$ 562	\$ 576	\$ 590	\$ 605	\$ 620	\$ 635	\$ 651
Synch & Other	\$ 21	\$ 18	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 17	\$ 17	\$ 18	\$ 18	\$ 19	\$ 19	\$ 19	\$ 20	\$ 20
Total	\$ 7,756	\$ 3,852	\$ 2,644	\$ 2,214	\$ 1,994	\$ 1,994	\$ 1,994	\$ 1,995	\$ 2,050	\$ 2,107	\$ 2,152	\$ 2,198	\$ 2,245	\$ 2,293	\$ 2,342	\$ 2,392
All Eyez																
Mechanical	\$ 9,365	\$ 5,151	\$ 3,605	\$ 3,065	\$ 2,758	\$ 2,758	\$ 2,758	\$ 2,758	\$ 2,827	\$ 2,898	\$ 2,956	\$ 3,015	\$ 3,075	\$ 3,137	\$ 3,199	\$ 3,263
Performance	\$ 5,744	\$ 2,298	\$ 1,494	\$ 1,195	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,075	\$ 1,114	\$ 1,153	\$ 1,182	\$ 1,211	\$ 1,242	\$ 1,273	\$ 1,305	\$ 1,337
Synch & Other	\$ 16	\$ 13	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ 13	\$ 13	\$ 13	\$ 14	\$ 14	\$ 14	\$ 15	\$ 15	\$ 16
Total	\$ 15,125	\$ 7,462	\$ 5,111	\$ 4,272	\$ 3,846	\$ 3,846	\$ 3,846	\$ 3,846	\$ 3,954	\$ 4,064	\$ 4,151	\$ 4,240	\$ 4,331	\$ 4,424	\$ 4,519	\$ 4,616
Wife You Up																
Mechanical	\$ 9,753	\$ 5,364	\$ 3,755	\$ 3,192	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,873	\$ 2,944	\$ 3,018	\$ 3,078	\$ 3,140	\$ 3,203	\$ 3,267	\$ 3,332	\$ 3,399
Performance	\$ 3,179	\$ 1,271	\$ 826	\$ 661	\$ 595	\$ 595	\$ 595	\$ 595	\$ 616	\$ 638	\$ 654	\$ 670	\$ 687	\$ 704	\$ 722	\$ 740
Synch & Other	\$ 30	\$ 25	\$ 23	\$ 23	\$ 23	\$ 23	\$ 23	\$ 24	\$ 25	\$ 25	\$ 26	\$ 26	\$ 27	\$ 28	\$ 29	\$ 29
Total	\$ 12,962	\$ 6,661	\$ 4,604	\$ 3,876	\$ 3,490	\$ 3,490	\$ 3,491	\$ 3,492	\$ 3,585	\$ 3,681	\$ 3,758	\$ 3,837	\$ 3,917	\$ 3,999	\$ 4,083	\$ 4,168
Zack And Codeine																
Mechanical	\$ 21,393	\$ 11,766	\$ 8,236	\$ 7,001	\$ 6,301	\$ 6,301	\$ 6,301	\$ 6,301	\$ 6,458	\$ 6,620	\$ 6,752	\$ 6,887	\$ 7,025	\$ 7,166	\$ 7,309	\$ 7,455
Performance	\$ 25,515	\$ 10,206	\$ 6,634	\$ 5,307	\$ 4,776	\$ 4,776	\$ 4,776	\$ 4,776	\$ 4,946	\$ 5,122	\$ 5,250	\$ 5,381	\$ 5,515	\$ 5,653	\$ 5,795	\$ 5,939
Synch & Other	\$ 839	\$ 713	\$ 642	\$ 642	\$ 642	\$ 642	\$ 658	\$ 675	\$ 692	\$ 709	\$ 727	\$ 745	\$ 763	\$ 782	\$ 802	\$ 822
Total	\$ 47,748	\$ 22,686	\$ 15,512	\$ 12,950	\$ 11,719	\$ 11,719	\$ 11,735	\$ 11,752	\$ 12,096	\$ 12,450	\$ 12,728	\$ 13,013	\$ 13,304	\$ 13,601	\$ 13,905	\$ 14,216
KIKA																
Mechanical	\$ 45,094	\$ 24,802	\$ 17,361	\$ 14,757	\$ 13,281	\$ 13,281	\$ 13,281	\$ 13,281	\$ 13,613	\$ 13,954	\$ 14,233	\$ 14,517	\$ 14,808	\$ 15,104	\$ 15,406	\$ 15,714
Performance	\$ 53,782	\$ 21,513	\$ 13,983	\$ 11,187	\$ 10,068	\$ 10,068	\$ 10,068	\$ 10,068	\$ 10,425	\$ 10,795	\$ 11,065	\$ 11,342	\$ 11,625	\$ 11,916	\$ 12,214	\$ 12,519
Synch & Other	\$ 1,312	\$ 1,115	\$ 1,003	\$ 1,003	\$ 1,003	\$ 1,003	\$ 1,028	\$ 1,054	\$ 1,080	\$ 1,108	\$ 1,135	\$ 1,164	\$ 1,193	\$ 1,222	\$ 1,253	\$ 1,284
Total	\$ 100,187	\$ 47,429	\$ 32,348	\$ 26,947	\$ 24,353	\$ 24,353	\$ 24,378	\$ 24,403	\$ 25,119	\$ 25,857	\$ 26,433	\$ 27,023	\$ 27,626	\$ 28,243	\$ 28,873	\$ 29,518
WAKA																
Mechanical	\$ 9,007	\$ 4,954	\$ 3,468	\$ 2,948	\$ 2,653	\$ 2,653	\$ 2,653	\$ 2,653	\$ 2,719	\$ 2,787	\$ 2,843	\$ 2,900	\$ 2,958	\$ 3,017	\$ 3,077	\$ 3,139
Performance	\$ 10,742	\$ 4,297	\$ 2,793	\$ 2,234	\$ 2,011	\$ 2,011	\$ 2,011	\$ 2,011	\$ 2,082	\$ 2,156	\$ 2,210	\$ 2,265	\$ 2,322	\$ 2,380	\$ 2,440	\$ 2,501
Synch & Other	\$ 656	\$ 557	\$ 502	\$ 502	\$ 502	\$ 502	\$ 514	\$ 527	\$ 540	\$ 554	\$ 568	\$ 582	\$ 596	\$ 611	\$ 627	\$ 642
Total	\$ 20,405	\$ 9,808	\$ 6,762	\$ 5,684	\$ 5,166	\$ 5,166	\$ 5,178	\$ 5,191	\$ 5,342	\$ 5,497	\$ 5,621	\$ 5,747	\$ 5,876	\$ 6,008	\$ 6,143	\$ 6,282

Song	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Undecided																
Mechanical	\$ 5,247	\$ 2,886	\$ 2,020	\$ 1,717	\$ 1,545	\$ 1,545	\$ 1,545	\$ 1,545	\$ 1,584	\$ 1,624	\$ 1,656	\$ 1,689	\$ 1,723	\$ 1,757	\$ 1,793	\$ 1,828
Performance	\$ 2,924	\$ 1,169	\$ 760	\$ 608	\$ 547	\$ 547	\$ 547	\$ 547	\$ 567	\$ 587	\$ 602	\$ 617	\$ 632	\$ 648	\$ 664	\$ 681
Synch & Other	\$ 6	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6
Total	\$ 8,177	\$ 4,060	\$ 2,785	\$ 2,330	\$ 2,097	\$ 2,097	\$ 2,097	\$ 2,098	\$ 2,156	\$ 2,216	\$ 2,263	\$ 2,311	\$ 2,361	\$ 2,411	\$ 2,462	\$ 2,515
I'll Kill You																
Mechanical	\$ 2,348	\$ 1,291	\$ 904	\$ 768	\$ 692	\$ 692	\$ 692	\$ 692	\$ 709	\$ 727	\$ 741	\$ 756	\$ 771	\$ 786	\$ 802	\$ 818
Performance	\$ 2,800	\$ 1,120	\$ 728	\$ 582	\$ 524	\$ 524	\$ 524	\$ 524	\$ 543	\$ 562	\$ 576	\$ 591	\$ 605	\$ 620	\$ 636	\$ 652
Synch & Other	\$ 262	\$ 223	\$ 201	\$ 201	\$ 201	\$ 201	\$ 206	\$ 211	\$ 216	\$ 222	\$ 227	\$ 233	\$ 239	\$ 244	\$ 251	\$ 257
Total	\$ 5,411	\$ 2,634	\$ 1,833	\$ 1,552	\$ 1,416	\$ 1,416	\$ 1,421	\$ 1,427	\$ 1,468	\$ 1,510	\$ 1,544	\$ 1,579	\$ 1,615	\$ 1,651	\$ 1,689	\$ 1,727
Do It																
Mechanical	\$ 12,435	\$ 6,839	\$ 4,787	\$ 4,069	\$ 3,662	\$ 3,662	\$ 3,662	\$ 3,662	\$ 3,754	\$ 3,848	\$ 3,925	\$ 4,003	\$ 4,083	\$ 4,165	\$ 4,248	\$ 4,333
Performance	\$ 8,698	\$ 3,479	\$ 2,262	\$ 1,809	\$ 1,628	\$ 1,628	\$ 1,628	\$ 1,628	\$ 1,686	\$ 1,746	\$ 1,790	\$ 1,834	\$ 1,880	\$ 1,927	\$ 1,975	\$ 2,025
Synch & Other	\$ 24	\$ 20	\$ 18	\$ 18	\$ 18	\$ 18	\$ 19	\$ 19	\$ 20	\$ 20	\$ 21	\$ 21	\$ 22	\$ 22	\$ 23	\$ 23
Total	\$ 21,157	\$ 10,339	\$ 7,067	\$ 5,897	\$ 5,309	\$ 5,309	\$ 5,309	\$ 5,310	\$ 5,460	\$ 5,614	\$ 5,735	\$ 5,859	\$ 5,985	\$ 6,114	\$ 6,246	\$ 6,381
Girls In The Hood																
Mechanical	\$ 6,297	\$ 3,463	\$ 2,424	\$ 2,061	\$ 1,855	\$ 1,855	\$ 1,855	\$ 1,855	\$ 1,901	\$ 1,948	\$ 1,987	\$ 2,027	\$ 2,068	\$ 2,109	\$ 2,151	\$ 2,194
Performance	\$ 2,963	\$ 1,185	\$ 770	\$ 616	\$ 555	\$ 555	\$ 555	\$ 555	\$ 574	\$ 595	\$ 610	\$ 625	\$ 641	\$ 657	\$ 673	\$ 690
Synch & Other	\$ 9	\$ 8	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ 8	\$ 8	\$ 8	\$ 8	\$ 8	\$ 9	\$ 9
Total	\$ 9,269	\$ 4,656	\$ 3,202	\$ 2,684	\$ 2,416	\$ 2,416	\$ 2,416	\$ 2,416	\$ 2,483	\$ 2,551	\$ 2,605	\$ 2,660	\$ 2,716	\$ 2,774	\$ 2,833	\$ 2,893
Tyler Herro																
Mechanical	\$ 6,671	\$ 3,669	\$ 2,568	\$ 2,183	\$ 1,965	\$ 1,965	\$ 1,965	\$ 1,965	\$ 2,014	\$ 2,064	\$ 2,106	\$ 2,148	\$ 2,191	\$ 2,234	\$ 2,279	\$ 2,325
Performance	\$ 2,657	\$ 1,063	\$ 691	\$ 553	\$ 497	\$ 497	\$ 497	\$ 497	\$ 515	\$ 533	\$ 547	\$ 560	\$ 574	\$ 589	\$ 603	\$ 619
Synch & Other	\$ 7	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6	\$ 6	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7
Total	\$ 9,336	\$ 4,738	\$ 3,265	\$ 2,741	\$ 2,468	\$ 2,468	\$ 2,468	\$ 2,468	\$ 2,535	\$ 2,604	\$ 2,659	\$ 2,715	\$ 2,772	\$ 2,830	\$ 2,890	\$ 2,951
Additional Titles																
Mechanical	\$ 5,449	\$ 2,997	\$ 2,098	\$ 1,783	\$ 1,605	\$ 1,605	\$ 1,605	\$ 1,605	\$ 1,645	\$ 1,686	\$ 1,720	\$ 1,754	\$ 1,789	\$ 1,825	\$ 1,862	\$ 1,899
Performance	\$ 924	\$ 370	\$ 240	\$ 192	\$ 173	\$ 173	\$ 173	\$ 173	\$ 179	\$ 186	\$ 190	\$ 195	\$ 200	\$ 205	\$ 210	\$ 215
Synch & Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 6,373	\$ 3,367	\$ 2,338	\$ 1,975	\$ 1,778	\$ 1,778	\$ 1,778	\$ 1,778	\$ 1,824	\$ 1,872	\$ 1,910	\$ 1,949	\$ 1,989	\$ 2,030	\$ 2,071	\$ 2,114
lift	\$ 38,405	\$ 26,260	\$ 18,382	\$ 15,625	\$ 14,062	\$ 14,062	\$ 14,062	\$ 14,062	\$ 14,414	\$ 14,774	\$ 15,070	\$ 15,371	\$ 15,679	\$ 15,992	\$ 16,312	\$ 16,638
	\$ 302,310	\$ 153,954	\$ 105,854	\$ 88,746	\$ 80,115	\$ 80,115	\$ 80,175	\$ 80,238	\$ 82,485	\$ 84,797	\$ 86,629	\$ 88,502	\$ 90,416	\$ 92,371	\$ 94,369	\$ 96,411
																\$ 1,440,817
\$ (1,344,560)	\$ 302,310	\$ 153,954	\$ 105,854	\$ 88,746	\$ 80,115	\$ 80,115	\$ 80,175	\$ 80,238	\$ 82,485	\$ 84,797	\$ 86,629	\$ 88,502	\$ 90,416	\$ 92,371	\$ 94,369	\$ 1,537,228
9.0%																

2.2%
Terminal Rate

EXHIBIT A: SUPPORTING TABLES**Activity Comparison**

Title	Artist	Peak 4 Quarters Mediabase Detects	Spotify Streams (as of 4/8/2021)	Comp Applied	Mediabase Compared to Comp Title	Spotify Compared to Comp Title	Average Mediabase & Spotify Share Compared to Comp Title
All Eyez	The Game feat. Jeremih	123,103	100,306,667	Pills & Automobiles	94.9%	53.1%	74.0%
Sorry	Rick Ross ft. Chris Brown	43,302	40,039,319	Pills & Automobiles	33.4%	21.2%	27.3%
Wife You Up	Russ	18,285	55,366,534	Pills & Automobiles	14.1%	29.3%	21.7%
Zack And Codeine	Post Malone	insignificant	202,071,913	Notice Me	NA	116.3%	NA
KIKA	6ix9ine	insignificant	272,599,840	Notice Me	NA	156.8%	NA
WAKA	6ix9ine	insignificant	108,899,446	Notice Me	NA	62.7%	NA
Undecided	Chris Brown	150,650	143,197,058	Pills & Automobiles	116.1%	75.8%	96.0%
I'll Kill You	Summer Walker	insignificant	70,969,434	Notice Me	NA	40.8%	NA
Do It	Chloe x Halle	132,000	88,237,106	Pills & Automobiles	101.8%	46.7%	74.2%
Girls In The Hood	Megan Thee Stallion	93,144	119,151,775	Pills & Automobiles	71.8%	63.1%	67.4%
Tyler Herro	Jack Harlow	84,256	151,478,499	Pills & Automobiles	64.9%	80.2%	72.6%
Pills & Automobiles (Comp Title)	Chris Brown	129,728	188,901,502				
Notice Me (Comp Title)	Migos & Post Malone	insignificant	173,813,214				

Comp Title Earnings

Income Type	Peak Year Gross Earnings - at Reservoir's Share			Peak Year Gross Earnings - 100% Share		
	Pills & Automobiles	Notice Me	Why	Pills & Automobiles	Notice Me	Why
Mechanical	\$ 19,966	\$ 28,753	\$ 295	\$ 133,104	\$ 115,010	\$ 842
Performance	\$ 4,394	\$ 17,146	\$ 25	\$ 29,294	\$ 68,584	\$ 71
Synch & Other	\$ 18	\$ 1,312	\$ -	\$ 119	\$ 5,246	\$ -

	Pills & Automobiles	Notice Me	Why
Reservoir Share	15.0%	25.0%	35.0%

EXHIBIT A: UPLIFT IN STREAMING MECHANICALS

Regarding the CRB's decision to significantly increase streaming mechanical rates.

	<u>2021</u>	<u>2022</u>
Royalty Rate (as a % of revenue)	14.2%	15.1%
Mechanical portion of rate	10.2%	11.1%
2017 Mechanical Rate	6.5%	6.5%
% increase	56.9%	70.8%
U.S. Streaming Mechanical Share of Mechanicals	48.9%	